MARINE ENVIRONMENT PROTECTION
COMMITTEE
67th session
Agenda item 3

MEPC 67/INF.2/Rev.1
15 July 2014
ENGLISH ONLY

RECYCLING OF SHIPS

Calculation of recycling capacity for meeting the entry into force conditions of the Hong Kong Convention

Note by the Secretariat

<table>
<tr><td colspan="2" align="center">SUMMARY</td></tr>
<tr><td>*Executive summary:*</td><td>To assist the Committee and other stakeholders to reach a better understanding of the conditions for the entry into force of the Hong Kong Convention, the Secretariat in 2011, 2012 and 2013, in accordance with resolution MEPC.178(59), collected published data on ship recycling volumes for the preceding 10 years and submitted an analysis to the Committee (MEPC 64/INF.2 and MEPC 66/INF.3).

In 2014, having obtained the ship recycling and fleet data for 2013, the Secretariat has produced a revised analysis on the conditions for entry into force of the Hong Kong Convention, as shown in this document.

This document shows that the conditions for entry into force of the Hong Kong Convention in the period April 2014 to April 2015 necessitate accession or ratification by at least 15 States, whose combined merchant fleets constitute a gross tonnage of not less than 449,059,784, and whose combined maximum annual ship recycling volumes constitute a gross tonnage of not less than 13,471,794.</td></tr>
<tr><td>*Strategic direction:*</td><td>7.1</td></tr>
<tr><td>*High-level action:*</td><td>7.1.2</td></tr>
<tr><td>*Planned output:*</td><td>7.1.2.1</td></tr>
<tr><td>*Action to be taken:*</td><td>Paragraph 15</td></tr>
<tr><td>*Related documents:*</td><td>SR/CONF/41, SR/CONF/CW/RD/5, resolution MEPC.178(59), MEPC 64/INF.2 and MEPC 66/INF.3</td></tr>
</table>

Background

1   Article 17 of the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009 (Hong Kong Convention) provides that the Convention shall enter into force 24 months after the date on which the following conditions are met:

.1   not less than 15 States have either signed it without reservation as to ratification, acceptance or approval, or have deposited the requisite instrument of ratification, acceptance, approval or accession in accordance with article 16;

.2   the combined merchant fleets of the States mentioned in paragraph 1.1 constitute not less than 40% of the gross tonnage of the world's merchant shipping; and

.3   the combined maximum annual ship recycling volume of the States mentioned in paragraph 1.1 during the preceding 10 years constitutes not less than 3% of the gross tonnage of the combined merchant shipping of the same States.

2   The International Conference on the Safe and Environmentally Sound Recycling of Ships, which was held in Hong Kong, China, in May 2009, had requested the Marine Environment Protection Committee (MEPC) to develop a procedure for calculating the combined maximum annual ship recycling volume (ship recycling capacity), taking into account the proposal in document SR/CONF/41 (Japan). In response to this request, MEPC 59 adopted resolution MEPC.178(59) on *Calculation of recycling capacity for meeting the entry-into-force conditions of the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009.*

3   Resolution MEPC.178(59) invites the Secretary-General, when calculating the combined maximum annual ship recycling volume of Contracting States, as required by article 17 of the Convention, to refer to annually published statistical data on recycled gross tonnage of shipping, on the following basis:

.1   for each Contracting State, extract the "annual ship recycling volume" for each of the preceding 10 years, by reference to the data on total gross tonnage provided in the table on disposals by country of breaking in that year's Lloyd's Register-Fairplay annual publication *World Casualty Statistics*; and

.2   determine "the maximum annual ship recycling volume" by selecting the highest value occurring in the 10-year period for each Contracting State.

4   The statistical data referred to above are usually published in *World Casualty Statistics* which provides in April/May of each year data on all ships lost (as a result of casualty) and disposed of (recycled) during the previous calendar year. Since 2009 the publisher is IHS Fairplay, which took over from Lloyd's Register-Fairplay. Fleet gross tonnage data for entry into force of this and other IMO conventions have been obtained from the IHS Fairplay publication *World Fleet Statistics*, which publishes in April of each year fleet data as of 31 December of the previous year. From 2012, IHS Fairplay ceased the printed format of the above-mentioned two publications and instead makes these available as a web-based product.

Determination of ship recycling capacity

5   To assist the Committee and other stakeholders to reach a better understanding of the conditions for the Convention's entry into force, the Secretariat, in accordance with resolution MEPC.178(59), has collected the published ship recycling volume data for the preceding 10 years, as shown in the tables in the annex to this document.

6   Table 1 shows, for each country that is recorded by IHS Fairplay as having recycled any ships in the last decade, the total gross tonnage recycled in each of the preceding 10 years (2004 to 2013). Also, the last column of table 1 shows the maximum annual ship recycling volume of each State, this being the largest entry of recycled gross tonnage in the decade. The maximum annual ship recycling volume of each State may be regarded as the present recycling capacity of that State.

7   Table 2 presents data on the total gross tonnage of the world fleet for each of the preceding 10 years. For establishing the criteria for the entry into force of the Convention, only the most recent year's total gross tonnage of the world fleet is relevant (i.e. the data for 2013). However, data for the previous nine years are included in table 2 in order to demonstrate the growth of the world fleet and consequently the effect that growth has on the entry into force criteria.

8   The second row in table 2 shows the 40% of the world fleet's gross tonnage figure (this being the minimum tonnage of merchant shipping flying the flags of Contracting States that is necessary to satisfy the tonnage condition for entry into force of the Convention – see paragraph 1.2 above). Finally, the third row of table 2 shows the 3% of the 40% of the world fleet's tonnage figure (this being the minimum tonnage of combined maximum annual ship recycling volume of Contracting States that is necessary to satisfy the recycling capacity criterion for entry into force of the Convention – see paragraph 1.3 above).

9   The published data for 2013 show that the conditions for entry into force of the Hong Kong Convention necessitate accession or ratification by at least 15 States, whose combined merchant fleets constitute a gross tonnage of not less than 449,059,784, and whose combined maximum annual ship recycling volumes constitute a gross tonnage of not less than 13,471,794. Evidently, as the gross tonnage of the world fleet changes from year to year, so will the required minimum tonnages of the combined fleet and of the combined maximum annual ship recycling volume, as also shown in table 2.

10   Table 3 presents an extract from table 1 showing, for the top five ship recycling States (listed in this paragraph in the order of capacity: India, Bangladesh, China, Pakistan and Turkey), their total gross tonnage recycled annually and their maximum annual ship recycling volume (recycling capacity). Importantly, table 3 also shows that, for each year in the decade, the top five recycling States have recycled an average of 97% of all tonnage recycled in the world.

11   Each of the top three recycling States, i.e. India, Bangladesh and China, has a large share of the world's recycling capacity (between 21% and 33%), while Pakistan and Turkey have smaller but increasing shares of the world's capacity (around 15% and 4%). Turkey, nevertheless recycles more tonnage than the rest of the world (excluding the top five recycling States) put together.

12   On the basis of the data on maximum annual ship recycling volumes presented in table 3, it can be seen that accession by any two of the top four recycling States (i.e. India, Bangladesh, China and Pakistan) is currently more than sufficient to satisfy the third

condition for the Convention's entry into force (paragraph 1.3 above). Also, accession by India and Turkey would currently satisfy this recycling capacity condition.

13   Finally, it should be noted that if a Member State wishes to verify the data for its annual ship recycling volumes, IHS Fairplay would welcome the opportunity to cross-check its records by receiving a list of the recycled ships for the year in question.

Status of the Convention

14   As of the date of this document, three States, Norway, the Republic of Congo and France, have ratified or acceded to the Convention, whose combined merchant fleets constitute a gross tonnage of 22,206,357, and whose combined maximum annual ship recycling volumes constitute a gross tonnage of 12,251.

Action requested of the Committee

15   The Committee is invited to take into account the information in this document and the associated data in its consideration of ship recycling issues.

***

ANNEX

DETERMINATION OF THE SHIP RECYCLING CAPACITY CONDITION FOR ENTRY INTO FORCE OF THE HONG KONG CONVENTION

Table 1: Determination of annual ship recycling volume

	TABLE 1 : DETERMINATION OF ANNUAL SHIP RECYCLING VOLUME (Data by IHS-Fairplay)										Max.ann'l recl.vol.
RECYCLING STATE	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Max 2004-2013
ALBANIA	-	-	-	-	-	-	889	-	-	1,511	1,511
ARGENTINA	-	22,403	-	-	-	28,697	433	3,852	12,762	-	28,697
AUSTRALIA	-	-	4,807	-	103	-	-	-	-	-	4,807
AZERBAIJAN	1,467	-	208	-	-	-	-	-	-	-	1,467
BANGLADESH	3,356,537	2,113,765	2,882,503	1,837,988	4,176,026	6,608,531	3,927,297	5,837,137	8,837,828	7,304,784	8,837,828
BELGIUM	10,220	1,374	2,064	878	11,554	5,267	6,389	16,005	36,441	10,351	36,441
BRAZIL	16,490	-	-	-	447	467	369	8,749	6,980	-	16,490
BULGARIA	-	-	-	-	-	2,406	-	-	-	1,640	2,406
CANADA	561	-	21,328	8,233	1,495	161	622	21,205	18,624	18,810	21,328
CAPE VERDE	-	-	-	-	-	1,290	-	-	-	-	1,290
CHILE	917	-	-	1,110	-	-	2,406	1,908	-	295	2,406
CHINA	1,538,067	151,089	254,146	340,738	927,762	7,737,730	4,723,151	5,968,520	8,167,710	7,083,536	8,167,710
COLOMBIA	-	-	-	6,788	-	-	-	7,519	-	-	7,519
COOK ISLANDS	-	-	-	912	465	-	-	-	-	-	912
CROATIA	831	889	403	-	242	-	492	738	2,814	855	2,814
CUBA	-	-	-	-	-	-	-	-	3,711	-	3,711
CYPRUS	-	-	-	-	-	-	-	-	-	121	121
DEMOCRATIC PEOPLE'S REP. OF KOREA	-	23,281	-	-	-	-	-	1,888	-	-	23,281
DENMARK	10,674	19,704	15,688	11,538	12,011	15,829	23,418	28,672	46,416	56,369	56,369
DOMINICAN REPUBLIC	-	-	-	-	-	-	-	-	9,205	-	9,205
ECUADOR	131	3,927	-	-	-	-	-	17,218	27,733	3,986	27,733
EGYPT	18,299	-	-	-	-	2,143	-	-	-	-	18,299
ESTONIA	1,163	-	-	239	2,342	-	2,426	3,593	852	2,422	3,593
FRANCE	-	-	-	-	373	3,395	182	331	5,102	3,115	5,102
FRENCH POLYNESIA	-	888	-	-	-	-	626	-	-	-	888
GERMANY	-	1,147	-	-	-	-	-	-	-	274	1,147
GHANA	-	-	1,005	898	-	-	-	8,714	-	807	8,714
GREECE	457	-	2,307	10,815	-	487	-	-	1,102	-	10,815
GUYANA	-	-	-	-	2,230	-	-	-	-	-	2,230
ICELAND	-	-	144	721	-	-	-	-	-	-	721
INDIA	1,619,505	1,123,487	852,990	1,332,492	2,458,113	7,561,258	6,533,954	8,504,517	12,210,082	8,087,096	12,210,082
INDONESIA	1,285	209	-	-	2,813	6,695	-	-	9,110	14,918	14,918
IRELAND	-	-	836	136	-	-	147	173	-	-	836
ISLAMIC REPUBLIC OF IRAN	-	-	-	-	-	-	-	-	126	-	126
ITALY	581	-	125	597	-	-	1,433	-	-	-	1,433
JAPAN	5,767	-	712	-	495	990	45,706	-	-	13,343	45,706
LATVIA	1,400	6,976	2,434	11,384	118	-	695	1,857	2,065	3,911	11,384
LEBANON	1,213	-	-	-	-	-	-	-	-	-	1,213

RECYCLING STATE	TABLE 1 (continued): DETERMINATION OF ANNUAL SHIP RECYCLING VOLUME (Data by IHS-Fairplay)										Max.ann'l recl.vol.
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Max 2004-2013
LITHUANIA	4,297	118	4,584	685	2,699	721	1,400	2,303	1,895	14,002	14,002
MADAGASCAR	-	-	-	-	-	-	-	-	-	571	571
MALTA	-	-	745	-	-	-	-	947	-	141	947
MEXICO	12,753	-	1,396	-	8,671	-	-	9,304	18,659	95,052	95,052
MONTENEGRO	-	-	-	120	-	-	-	-	-	-	120
MOROCCO	-	-	-	-	-	-	-	-	-	3,025	3,025
NETHERLANDS	28,879	4,611	3,403	1,485	6,602	4,185	538	6,647	188	2,001	28,879
NETHERLANDS ANTILLES	-	-	1,422	-	-	-	-	-	-	-	1,422
NEW ZEALAND	366	-	-	1,390	3,007	-	-	1,044	222	-	3,007
NIGERIA	-	-	-	-	-	4,015	-	-	-	2,579	4,015
NORWAY	5,278	1,206	-	489	6,261	-	818	3,610	2,894	3,790	6,261
OMAN	-	-	-	-	574	-	-	-	-	-	574
PAKISTAN	209,055	47,530	186,987	379,601	273,937	2,100,637	2,443,304	3,013,926	5,499,481	5,376,443	5,499,481
PANAMA	-	-	-	-	-	-	2,125	789	1,440	-	2,125
PAPUA NEW GUINEA	-	-	-	-	-	-	614	-	-	-	614
PERU	-	-	-	-	-	6,892	-	-	-	-	6,892
PHILIPPINES	3,138	-	-	-	-	-	7,977	-	1,216	4,036	7,977
POLAND	-	1,028	-	-	-	-	-	-	2,857	-	2,857
PORTUGAL	-	-	-	1,409	249	3,466	2,933	-	-	3,095	3,466
REPUBLIC OF KOREA	5,800	467	-	-	-	673	-	-	-	11,246	11,246
ROMANIA	2,613	-	-	-	109	-	-	-	-	9,160	9,160
RUSSIAN FEDERATION	7,377	3,335	19,404	9,848	12,348	5,318	-	3,924	3,075	2,175	19,404
SLOVENIA	-	-	-	-	-	-	-	-	312	-	312
SINGAPORE	-	697	-	-	-	-	-	-	-	-	697
SOUTH AFRICA	-	-	-	802	-	585	453	292	-	-	802
SPAIN	12,633	6,121	6,871	1,041	6,165	14,206	11,709	8,285	16,656	7,468	16,656
SWEDEN	1,065	-	-	-	-	-	-	-	-	19,638	19,638
THAILAND	-	-	-	-	677	-	-	-	-	-	677
TRINIDAD AND TOBAGO	-	-	-	-	-	400	-	1,747	-	-	1,747
TURKEY	200,183	137,693	148,448	117,817	141,351	557,251	658,473	1,067,425	1,540,800	1,369,955	1,540,800
UKRAINE	-	-	10,165	-	-	717	-	825	4,517	1,836	10,165
UNITED ARAB EMIRATES	-	-	-	-	950	-	-	-	-	-	950
UNITED KINGDOM	1,491	2,340	2,771	2,535	-	2,411	707	2,269	1,249	582	2,771
BERMUDA	-	-	-	-	134	-	-	-	-	-	134
FALKLAND ISLANDS (Malvinas) *	-	507	-	-	-	-	-	-	-	-	507
GIBRALTAR	-	-	-	-	-	-	-	2,099	-	-	2,099
UNITED REP. OF TANZANIA	-	-	-	-	520	-	-	-	3,119	-	3,119
UNITED STATES OF AMERICA	79,139	24,629	79,362	47,490	196,410	10,868	133,428	204,348	114,908	168,716	204,348
URUGUAY	-	-	-	-	-	-	203	-	-	-	203
VIETNAM	8,076	1,898	5,813	3,834	-	-	-	-	15,616	67,437	67,437
UNKNOWN	27,784	70,891	78,574	18,834	22,534	270,829	138,715	253,993	191,631	62,676	270,829
TOTALS	7,195,492	3,772,210	4,591,645	4,152,847	8,279,787	24,958,520	18,674,032	25,016,373	36,819,398	29,833,768	37,456,241

* A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

Table 2: World Fleet in GT terms

	TABLE 2: WORLD FLEET IN GT TERMS (Date by HIS-Fairplay)										
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
WORLD FLEET	633,321,120	675,115,956	721,855,399	774,936,508	830,704,412	882,634,804	957,982,304	1,043,081,509	1,081,204,742	1,122,649,460	
40% of WORLD FLEET	253,328,448	270,046,382	288,742,160	309,974,603	332,281,765	353,053,922	383,192,922	417,232,604	432,481,897	449,059,784	
3% of 40%	7,599,853	8,101,391	8,662,265	9,299,238	9,968,453	10,591,618	11,495,788	12,516,978	12,974,457	13,471,794	

Table 3: Annual ship recycling volume of the largest ship recycling countries

	TABLE 3: ANNUAL SHIP RECYCLING VOLUME OF THE LARGEST SHIP RECYCLING COUNTRIES (Date by IHS-Fairplay)										Max.ann'l recl.vol.
RECYCLING STATE	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Max 2004-2013
BANGLADESH	3,356,537	2,113,765	2,882,503	1,837,988	4,176,026	6,608,531	3,927,297	5,837,137	8,837,828	7,304,784	8,837,828
CHINA	1,538,067	151,089	254,146	340,738	927,762	7,737,730	4,723,151	5,968,520	8,167,710	7,083,536	8,167,710
INDIA	1,619,505	1,123,487	852,990	1,332,492	2,458,113	7,561,258	6,533,954	8,504,517	12,210,082	8,087,096	12,210,082
PAKISTAN	209,055	47,530	186,987	379,601	273,937	2,100,637	2,443,304	3,013,926	5,499,481	5,376,443	5,499,481
TURKEY	200,183	137,693	148,448	117,817	141,351	557,251	658,473	1,067,425	1,540,800	1,369,955	1,540,800
Sum of top five recycling States	6,923,347	3,573,564	4,325,074	4,008,636	7,977,189	24,565,407	18,286,179	24,391,525	36,255,901	29,221,814	36,255,901
Rest of the world	272,145	198,646	266,571	144,211	302,598	393,113	387,853	624,848	563,497	611,954	1,200,340
WORLD TOTAL	7,195,492	3,772,210	4,591,645	4,152,847	8,279,787	24,958,520	18,674,032	25,016,373	36,819,398	29,833,768	37,456,241
											10 year average:
% of top five to world totals	96%	95%	94%	97%	96%	98%	98%	98%	98%	98%	97%